Register Now! May 12th – 16th, 2008
Rutgers EcoComplex Bordentown, NJ

APPLIED ENVIRONMENTAL STATISTICS

Course Description

Applied Environmental Statistics develops hands-on expertise for all environmental scientists who interpret data and present their findings to others. A complete understanding of how statistical methods work unfolds through applications to field-oriented problems. Statistical methods are explained in the light of data with nondetects, outliers, and skewed distributions. Methods for estimation and prediction are illustrated along with their common pitfalls. Student exercises follow each lecture to ensure that when you return to the office, so does your new knowledge. The instructors, Drs. Dennis Helsel and Edward Gilroy, have trained several thousand students in practical environmental statistics both in the US and internationally since 1990.

Course Content:

* Trend analysis -- is water quality (or air, or climate indicators) changing?
* Confidence, prediction, & tolerance intervals.
* How hypothesis tests work.
* How to build a good regression model-- and when not to.
* Dealing with outliers.
* When are transformations OK?
* How many samples do I need?
* Comparing two and more groups
* Load estimation and bias, and more.

See http://www.practicalstats.com
for a full course outline, fee, and online registration.

Instructors

Dr. Dennis Helsel (PhD, Environmental Science and Engineering, Virginia Tech) has 30 years experience applying statistics to practical issues in environmental sciences. He is the lead author of the course textbook "Statistical Methods in Water Resources" (USGS, 2002), and of many papers on environmental statistics in journals such as Environmental Science and Technology. Dr. Helsel is the 2003 recipient of the Distinguished Service Award from the American Statistical Association's section on Statistics and the Environment. His recent textbook "Nondetects And Data Analysis: Statistics for Censored Environmental Data "(2005) is published by Wiley.

Dr. Edward Gilroy (PhD in Mathematical Statistics - Catholic Univ.) has over 35 years experience as a consulting statistician, 30 years within the US Geological Survey, and coordinated its statistical training. He now advises private firms and governmental agencies. Dr. Gilroy has authored numerous papers on applied statistics, and is coauthor of the chapter "Statistical Analysis of Hydrologic Data" in McGraw-Hill's Handbook of Hydrology (1993).